



TECHNICAL BULLETIN

Change Management

Overview: This TECHNICAL BULLETIN provides additional compliance guidelines specific to changes to event wagering systems (also known as the online sports gaming systems). All changes to event wagering systems shall be made in accordance with this Bulletin. This process ensures transparency in relation to changes to the event wagering system and the decision process behind those changes.

The sports gaming operator (“Operator”) and its online sports wagering platform provider (“Platform Provider”) are responsible for ensuring that the event wagering system is certified in accordance with the Sports Gaming License Rules, Regulations and Standards (“Rules”) and the Minimum Internal Control Standards (“MICS”) adopted by the Tennessee Education Lottery Corporation (“TEL”).

Note: The TEL is not responsible for any costs associated with an Operator’s compliance with this Bulletin, including, but not limited to, costs associated with submissions to an independent test lab required for compliance with this Bulletin.

A. CONFIGURATION BASELINE OF THE EVENT WAGERING SYSTEM

The configuration baseline is established during the initial certification of the event wagering system. The configuration baseline shall be re-established at the time of recertification. The configuration baseline enables an independent testing laboratory approved by the TEL to inspect all changes to the components in such a manner that an audit trail exists back to the initial configuration baseline.

B. INTERNAL CONTROLS AND CHANGE MANAGEMENT LOG

1. The Operator or the Platform Provider, or both, shall submit internal controls to the TEL regarding the procedures in place to deploy changes and updates to the event wagering system.
2. A change management log (“CML”) shall be created by the Operator or its Platform Provider. The CML will create a report compiling the changes made to the event wagering system in accordance with Section C, below. This report must be submitted to the TEL’s Sport’s Gaming Division on the 15th day following the close of each calendar quarter. Quarters are as follows: Quarter 1, January – March; Quarter 2, April – June; Quarter 3, July – September; and Quarter 4, October – December.

The CML report and the Control Program Self-Verification Report shall be submitted via email to sportsgaming@tnlottery.com. The email should contain the subject line “Quarterly CML Reports” and the name of the Operator and Platform Provider should be identified.

In the event that the quarterly CML report and Control Program Self-Verification Report are too large to submit via email, the reports shall be mailed on electronic media (USB key) to the following:

Sports Gaming Operations Division
Tennessee Education Lottery Corporation
Attn: Danielle Boyd, Vice President of Sports Gaming Operations
26 Century Boulevard, Suite 200
Nashville, Tennessee 37214

If mailed, arrangements should be made for the quarterly CML report and Control Program Self-Verification Report to arrive at the above-referenced address by the close of business on the 15th day following the close of each calendar quarter. If the 15th day following the close of each calendar quarter occurs on a day the TEL’s offices are closed, the reports shall be due on the first business day following the 15th.

C. RECORDING CHANGES IN CHANGE MANAGEMENT LOG

The Platform Provider for the event wagering system shall record changes to the event wagering system in the CML. It is the responsibility of the Platform Provider to create and maintain the CML.¹

The CML shall record, at a minimum, the following:

1. Date and time of change;
2. A description and reason for the change, including each regulated control program component affected.² If the component being changed is a hardware component, include the physical location of this hardware component;
3. The name or other user ID of the individual responsible for authorizing and/or conducting the change;
4. TEL approval date, if applicable;
5. The level of the change (Level 1, 2, or 3); and

¹The Operator may also maintain the CML on behalf of its Platform Provider. The Operator shall maintain the CML if it maintains its own platform.

² Regulated components of the event wagering system are those files that are identified and certified by a independent testing lab approved by the TEL.



6. The recording of the new digital signature for any change to a regulated control program component which must match the daily control program self-verification report.

D. CONTROL PROGRAM SELF-VERIFICATION REPORT

The Platform Provider also shall submit a Control Program Self-Verification Report to show that all of the regulated control program components on the event wagering system are authentic copies of the approved components of the system as certified by a TEL-approved independent testing laboratory. This report shall be included as part of the quarterly CML report submission to the TEL, but shall be a separate report or file from the CML report.

The self-verification control program is considered a regulated control program component and, as such, must be certified by an independent testing lab. An approved form of a Control Program Self Verification template is attached to this Bulletin as Appendix A. An Operator or its Platform Provider may seek TEL approval for the use of a report that deviates from Appendix A.

E. CLASSIFICATION OF CHANGES

1. *Level 1 – No impact*

The change has no impact to regulated components of the event wagering system.

Examples:

- Changes to web pages or content not related to game play, game outcome, or any regulated feature;
- Installation or changes to backup software and/or hardware components;
- Adding or removing Operator's users;
- Database maintenance that modifies or deletes non-critical data in the database;
- Scheduled outages or maintenance to any WAN or Internet service provider infrastructure;
- Scheduled outages or maintenance to any electrical infrastructure (generator, ATS, UPS, PDU, etc.);
- Background images, color schemes, or similar ancillary front-end client updates; or
- Installation of operating system security patches.

2. *Level 2 – Low Impact*

The change has a low impact on the integrity of the event wagering system, including hardware component changes.

Examples:

- Firewall rule changes;
- Database maintenance;
- Changes to the physical location of regulated primary backup data;
- Any change or addition of physical hardware component; or
- Changes to non-game logic components of the overall platform that are not of a benign nature as described for Level 1 and with the exception of those representative of the examples for Level 3 changes.

3. *Level 3 – High Impact*

The change has a high impact on regulated components or reporting of the event wagering systems.

Examples:

- Implementation of a new gambling feature or a change to any logic impacting wagering or game logic;
- A change impacting required regulatory reports or data used for financial reconciliation;
- A change impacting the handling or storage of personally identifiable information;
- A change implemented by the Platform Provider that substantially impacts geolocation services; or
- A change to accommodate updated regulatory requirements.

F. CHANGE MANAGEMENT PROCESS

1. Email notice required

The TEL must receive notice regarding all Level 1, 2 and 3 changes made to the event wagering system prior to the deployment. Notice must be sent to the following email address: sportsgaming@tnlottery.com. Notices may include multiple changes that are to be deployed concurrently.



A. *Subject line requirement*

The subject line of the email requesting approval of Level 1, 2 or 3 changes must begin with the level of the change, to be designated as L1, L2 or L3. The subject line must then provide a unique, operator assigned reference number, name or code. The naming assignment shall remain consistent. The naming assignment (including level designation) also must be included in the CML submission.

B. *Information that must be included in all email requests*

The email must include a brief description of the changes being deployed and the level of the change. The body of the email request also must contain the following information:

i. **Attestation of internal online sports wagering platform provider testing.**

Notices provided under this section shall include an attestation from an individual licensed with the TEL that the deployment to be released will have no impact on the Platform Provider's ability to meet the requirements set forth in the Tennessee Sports Gaming Act, the Rules or the MICS.

ii. **Notice of deployment.**

If the deployment date is provided in the email notice described above, no further communication from the Operator or Platform Provider is required. If the deployment date changes from what was initially submitted or a date is not provided in the approval submission, then a message must be sent to sportsgaming@tnlottery.com confirming the deployment date.

2. **Level 1 Changes**

TEL approval is not required for Level 1 changes. Email notice must still be provided to the TEL and Level 1 changes must still be documented in the CML. Notifications (Level 1) shall be submitted to the TEL at least 3 business days prior to the scheduled release.

3. Level 2 and Level 3 Changes

- i. The TEL's prior written approval is required for Level 2 and Level 3 changes. A request for a Level 2 or Level 3 change shall be submitted to the TEL for review and approval. If a response is not received within five (5) business days from the date and time the notice was received by the TEL, approval of the change may be assumed. Once the change is approved, the Platform Provider may deploy the update.
- ii. Once approval has been received by the Platform Provider to make a Level 2 or Level 3 change, the approval shall be recorded in the CML, along with all relevant documentation to be submitted to the TEL quarterly.
- iii. For emergency deployments, please reference Section (F)(7), below.

4. Recertification of Event Wagering System or Event Wagering System Components for Level 2 and Level 3 Deployments

- i. The TEL, in its discretion, may require the Platform Provider to seek recertification of the event wagering system by the independent testing lab approved by the TEL that performed the original certification of the event wagering system. In such cases, the Platform Provider shall have sixty (60) days to have the component or the entire event wagering system, dependent on the TEL's determination, recertified by the approved independent testing laboratory.
- ii. In the event the independent testing lab that initially approved the event wagering system is unavailable to perform the recertification, Operator or Platform Provider must so inform the TEL and seek consent from the TEL to engage the services of another independent testing lab approved by the TEL.
- iii. Requests for an extension must be submitted to sportsgaming@tnlottery.com and include all relevant information regarding the change being recertified. This request shall be recorded in the CML with the date and time of submission. All communication between the independent testing laboratory and the Platform Provider shall be retained by the Platform Provider and provided to the TEL upon request. A copy of the request for recertification by the Platform Provider must also be submitted to the TEL.
- iv. The following Level 3 changes are examples of changes that shall trigger an automatic recertification requirement of the updated or new feature:



- Any addition or functional changes to the following components: payment processing components, Know Your Customer, responsible gaming, content delivery network (CDN), fraud detection, self-exclusion, or geolocation.

5. Reports upon request

In addition to the required quarterly CML-related report submission, a Platform Provider shall be able to generate a report from the CML or the Control Program Self-Verification Report upon the request of the TEL. The CML or the Control Program Self-Verification Report must be able to be organized by date and time. These reports shall be provided in either Adobe Reader format (PDF), Microsoft Word format (DOC), or Microsoft Excel format (XLS).

6. Recertification upon request

In addition to the requirements of subsection (F)(4), above, the TEL may require, at any time, a Platform Provider to obtain recertification of the event wagering system, in whole or in part, from the TEL-approved independent testing laboratory that initially certified the event wagering software. In such cases, the Platform Provider shall have sixty (60) days to obtain the recertification. This request shall be recorded in the CML with the date and time of submission. All communication between the independent testing laboratory and the Platform Provider also shall be recorded in the CML. A copy of the request for recertification also must be submitted to the TEL.

7. Emergency Situations

In emergency situations, a Platform Provider may execute Level 2 or Level 3 changes immediately upon providing notice to the TEL but prior to receiving the TEL's approval. Written notice shall be provided to the TEL as soon as possible. In addition to the other requirements for notification, the notice shall include why emergency action was required. The TEL will conduct analysis in each emergency instance to verify the necessity of the actions taken.

8. Change Management Log Submission

The CML must be submitted in the intervals described in Section B, above.

If you have questions regarding this Bulletin, please contact the Sports Gaming Division at 615-324-6557.

APPENDIX A

CONTROL PROGRAM SELF-VERIFICATION REPORT

Licensee: _____

Time period _____

Release note

Date / Time	Critical Component	Old SHA-1 Signature	New SHA-1 Signature

Release note

Date / Time	Critical Component	Old SHA-1 Signature	New SHA-1 Signature

Release note

Date / Time	Critical Component	Old SHA-1 Signature	New SHA-1 Signature